

WORKING PAPERS

N° TSE-684

July 2016

“Does empathy Beget Guile?”

Daniel L. Chen

DOES EMPATHY BEGET GUILF?

DANIEL L. CHEN*

Abstract Some theories about the positive impact of markets on morality suggest that competition increases empathy, not between competitors, but between them and third parties. However, empathy may be a necessary evolutionary antecedent to guile, which is when someone knows what the other person wants and intentionally deceives him or her, and deception may have evolved as a means of exploiting empathy. This paper examines how individuals primed for empathy behave towards third parties in a simple economic game of deception. It reports the results of a data entry experiment in an online labor market. Individuals enter data randomized to be a prime for empathy, for guile, or a control. Empathy is then measured using a Reading the Mind in the Eyes Test and guile is measured using a simple economic game. Individuals primed for empathy become less deceptive towards third parties. Individuals primed for guile become less likely to perceive that deceiving an individual is unfair in a vignette. These results are robust to a variety of controls and to restricting to workers who entered the prime accurately. These findings are inconsistent with the hypothesis that empathy causes guile and suggests that empathy may cause those who are making judgements to become less deceptive.

Keywords: Normative Commitments, Other-Regarding Preferences, Empathy, Deception, Guile

JEL codes: D64, D03, K00

*Daniel L. Chen, Toulouse Institute for Advanced Study, daniel.li.chen@gmail.com. I thank Aroha Bahuguna for research assistance. This project was conducted with financial support from the European Research Council, Swiss NSF, Institute for Humane Studies, John M. Olin Foundation, Ewing Marion Kauffman Foundation, and Templeton Foundation.

1 Introduction

Going back to Smith, Mill, and Montesquieu, a line of scholars have theorized that market forces increase morality. “Wherever there is commerce, manners are gentle,” wrote Montesquieu (1749) in *Spirit of the Laws*. “[Commerce] operates to cordialize mankind,” wrote Paine (1792) in *In the Rights of Man*. David Hume and Adam Smith, too, wrote of virtues being enhanced by commerce (Rosenberg 1964). And John Stuart Mill (1848) wrote, “The economical advantages of commerce are surpassed in importance by those of its effects, which are intellectual and moral,” in *Principles of Political Economy*. Another line of equally prominent economic thinkers, however, theorized the opposite. Schumpeter (1942) wrote that capitalism creates a critical frame of mind, which destroys moral authority, in *Capitalism, Socialism, and Democracy*. Hayek (1948) wrote of markets making fewer demands on people’s elevated motivations in *Individualism and Economic Order*. Veblen (2007) wrote that the competitive instinct has a profoundly degrading effect on individual judgment and conduct in *The Theory of the Leisure Class*. Marx (1867) argued that capitalist society undermines its own moral foundations through alienation and exploitation in the capitalist production process in *Das Kapital*. And Simmel (1955) wrote about the alienating properties of money, but also noted that competition fosters empathy, not among the competitors, but between them and third parties Hirschman (1982). Chen (2011) found that competition caused individuals to become more deontological and, for tournament winners, more charitable. This paper examines whether empathy causes moral behavior. Recent debates about the selection of judges have also revolved around whether individuals should be selected for empathy. This paper takes a first step in examining the causal impact of empathy in a simple economic game of deception towards third parties.

A broader theoretical question is whether empathy can cause guile. Individuals with empathy are better able to put themselves in the other person’s shoes. This may be a necessary evolutionary antecedent to guile, which is when someone knows what the other person wants and intentionally deceives him or her. As some psychologists have defined it, empathy is as a non-voluntary, subconscious process of affective understanding of other’s mental states or events. Empathy was a necessity in order for humans to be able to communicate effectively with each other (De Waal 2008). As communication between humans became more complex and individuals were confronted with competing interests, deception may have evolved as a means of exploiting empathy. A suggestive piece of evidence is that a basic form of deception, which sometimes even occurs subconsciously, is mimicking another, which encourages empathy in the individual (and causes the individual to view the mimicker more favorably). Such deception can even be seen in infants (emotional contagion, facial mimicking, crying) (see e.g. Sonnby-Borgström 2002; Lakin and Chartrand 2003).

This study examines whether empathy and guile are linked. As far as I am aware, no one has examined this possible relationship nor modeled a connection formally. I measure empathy through the Reading the Mind in the Eyes test (Baron-Cohen et al. 2001) and measure willingness to deceive through a simple economic game (Gneezy 2005). The test for empathy asks subjects to look at a small portion of the face, a pair of eyes, and pick one of four possible emotions that that person is feeling. This test has been validated though there is some question as to what kind of empathy it is actually measuring. The test for deception poses a simple two-player game where the second player makes a decision, option A or option B, that determines the payoffs for both players, but the first player knows the payoffs for both options and has the moral decision to tell the second player which payoff is better for the second person. Varying the difference in payoffs identifies how much people are willing to deceive.

I test the causal relationship between empathy and guile by priming individuals for empathy or for

guile through the content of a data entry task before their empathy and guile are measured. In particular, I ask participants to complete a short data entry task to ensure that the participant is a real human. The treatment conditions comprise being assigned to enter one of three possible paragraphs: a paragraph whose content is designed to trigger empathy, a control paragraph, and a short paragraph whose content is designed to trigger guile. This method successfully primes workers doing data entry. For example, to test whether exposure to a liberal or conservative judicial decision leads to shifts in moral attitudes towards the litigated subject, one can vary the final paragraph of a data entry task to be a news report about a recent legal decision (Chen and Yeh 2014a,c,b).

2 Methodology

The methodology is similar to what the author has employed in other studies (Chen 2011; Chen and Horton 2014; Shaw et al. 2011), some of which is repeated here for clarity. This study recruits workers through a labor market intermediary (LMI), namely Amazon Mechanical Turk. Two key characteristics of this LMI allow implementing the experimental design. Tasks are often done multiple times by different workers for quality-control purposes. Amazon Mechanical Turk ensures the same person does not do the same task more than once by preventing unique worker IDs from accepting the same task. It also prevents users from generating multiple worker IDs by using e-mail addresses, IP addresses, and in some cases, bank accounts. These measures prevent workers from entering the experiment more than once. Hundreds of thousands of jobs are posted each day. The behavior of subjects in this LMI is comparable to the behavior of subjects in a laboratory and may be comparable to subjects in a real labor market (Barankay 2010).

The LMI is also designed to recruit a large number of workers in a short amount of time. Through an interface provided by the LMI, registered users perform tasks posted by buyers for money. The tasks are generally simple to do for humans yet difficult for computers. Common tasks include captioning photographs, extracting data from scanned documents, and transcribing audio clips. A buyer controls the features, the contract terms of the tasks, and the number of times the buyer wants a task completed. Workers, who are identified to buyers only by a string of letters and numbers, can inspect tasks and the offered terms before deciding whether to complete them. Buyers can require workers to have certain qualifications, but the default is that workers can accept a task immediately and begin work. Once workers submit their work, buyers can approve or reject their submission. If the buyer approves the work, the LMI pays the worker with escrow funds provided by the buyer; the worker is paid nothing if the buyer rejects his work.

The LMI also allows the buyer to implement randomization although randomization is not intrinsic to the LMI. Buyers usually post tasks directly on the LMI, but they can also host tasks on an external site. I use this external hosting method; I post a single placeholder task containing a description of the work at the LMI and the link for workers to follow if they wish to participate. The subjects are then randomized, via stratification in the order in which they arrived at the job, to one of the several treatments. The LMI can be used to implement anything from a natural field experiment to a laboratory experiment (Harrison and List 2004). Workers come to the marketplace naturally and are unaware of being in an experiment. This lack of awareness thus alleviates the Hawthorne effects, demand or experimenter effects associated with knowing that one is participating in an experiment (Orne 1962; Titchener 1967). Even if they become aware of being in a study, workers are not aware of the treatments they are administered nor of the fact that other workers received different treatments.

In this experiment I investigate the effect of “priming” individuals on their ability to empathize. In this case, workers are “primed” by asking them to transcribe a paragraph with a specific content. The

workers are told that the data entry is to ensure that they are human and not computers. This paragraph is designed to induce empathy or guile or act as the control based on the treatment.

Guile: The defense in the Glenn Agliotti trial on Wednesday lashed restaurateur Alexis Christopher for omitting vital information about a “clandestine” meeting he arranged from his statement to the prosecution. Advocate Laurence Hodes SC slammed Christopher for failing to mention that he arranged a “clandestine” meeting with Agliotti’s ex-wife Vivian and slain mining magnate Brett Kebble’s head of security, Clinton Nassif. Nassif was fingered by three State witnesses as having arranged the “muscle” to kill Kebble. Christopher raised his voice, shook his head and waved off Hodes’ barrage of questions over his role in the meeting. During the meeting, Nassif told Vivian to give her ex-husband a message.

Control: Virginia Department of Transportation documents show the state has a big number of aging bridges. The Daily Press reported Sunday that the agency found more than 80 structurally deficient bridges in the Hampton Roads area alone. Statewide, the agency says 9 percent of bridges and culverts – or about 1,800 of them – are deficient. Mal Kerley, the agency’s chief engineer, says the bridges aren’t dangerous. He says the agency would close any dangerous bridge. Kerley says many bridges built decades ago are starting to show their age, but must compete with other needs for money. Kerley estimates it would cost \$4 billion to bring all Virginia bridges up to standards.

Empathy: For the 60 soldiers of the Army’s 601st Area Support Medical Company who deployed Saturday evening from Fort Bragg to Afghanistan, a holiday weekend of Thanksgiving ended with tears of uncertainty and worry. Deployment is difficult both for those who go to do their duty and for loved ones left behind. Soldier Zachary Hogan left when his wife was pregnant and got back when the child was about four months old. His son is about 18 months now, and it’s even more difficult to leave his family now with the holidays right around the corner. The soldiers of the 601st are expected to be gone for about a year.

The workers are then given a set of 36 eye expressions and asked to gauge the feelings portrayed. The scores (eyescore) from these expressions are used to assess if the priming was successful in inducing empathy. These scores are calculated such that those who are correct in identifying the expression get a score of 1. Hence getting all expressions correct will fetch 36 points. Higher points are supposed to reflect higher empathy.

Next, I reveal a second tier of treatments to assess the effect of priming on empathy for fellow workers. In this case, I use the two-player communication game (Gneezy 2005) where the worker from the LMI (player 1) has private information and a fellow worker (player 2) takes an action. This action may or may not be based on the message player 1 chooses to send. Payoffs to the players depend on the action chosen and not on the message sent. The two monetary distributions are A and B. Workers are informed about the monetary consequences of each option and they can choose to send one of the two messages to the other worker.

Message 1: “Option A will earn you more money than Option B.”

Message 2: “Option B will earn you more money than Option A.”

The treatments are constructed such that Option A always gives player 1 less than Option B and the reverse for player 2. Hence, Message 1 is true and Message 2 is false. The actual payoffs used are presented in Table 1.

In addition, a few workers are administered a fourth treatment, or Treatment 4 where participants judged the fairness of lying. In this treatment, workers were given the following scenarios (Gneezy 2005):

“Mr. Johnson is about to close a deal and sell his car for \$1,200. The engine’s oil pump does not work well, and Mr. Johnson knows that if the buyer learns about this, he will have to reduce the price by \$250 (the cost of fixing the pump). If Mr. Johnson doesn’t tell the buyer, the engine will overheat on the first hot day, resulting in damages of \$250 for the buyer. Being winter, the only way the buyer can learn about this now is if Mr. Johnson were to tell him. Otherwise, the buyer will learn about it only on the next hot day. Mr. Johnson chose not to tell the buyer about the problems with the oil pump. In your opinion, Mr. Johnson’s behavior is: *Completely Fair; Fair; Unfair; Very Unfair.*”

“What would your answer be if the cost of fixing the damage for the buyer incase Mr. Johnson does not tell him is \$1,000 instead of \$250? Mr. Johnson’s behavior is: *Completely Fair; Fair; Unfair; Very Unfair.*”

In the two scenarios, there is no difference in the seller’s payoffs but the buyer’s cost increases from \$250 to \$1000.

Following these questions, I ask for demographic characteristics including gender, age, religion (categories in the subsequent regressions are Christian, Hindu, Muslim, Atheists and the omitted category is Other), and frequency of religious attendance (never, once a year, once a month, once a week, or multiple times a week; coded as 1-5 respectively). Appendix 1 displays summary statistics. The average age in the sample is 27.5 years. Males comprise 62 percent of the sample. 26 percent are Christian, 14 percent are Atheists, 38 percent are Hindus and 12 percent are Muslims. The average religious attendance is between once a year and once a month. Demographic characteristics are balanced across treatment groups, consistent with the randomization of workers across treatment. After work has been completed, according to the original expiry date listed on the LMI, bonuses are calculated and workers are notified of their earnings.

The empirical specification examines the effect of treatment on outcomes, be it eyescore, sending Message 1 (the truthful response), or deeming Mr. Johnson’s behavior to be very unfair:

$$(1) \quad Outcome_{it} = \beta_0 + \beta_1^t Treatment_{it} + \beta_2 X_{it} + \varepsilon_{it}$$

$Treatment_{it}$ represents the treatment group for individual i in treatment t and X_{it} represents individual demographic characteristics.

3 Results

Table 1 shows that the overall results are similar to the Gneezy study. For Treatment 1, the number of people lying or picking Message 2 was 43 (47 percent) of the 91 senders. Note that in this case, the gain to player 1 from lying was \$1 and the loss to player 2 was also \$1. In Treatment 2, the gain from lying to player 1 was still \$1 but the loss to player 2 was increased to \$10. In this case, the number of people lying decreased dramatically to 25 (26 percent) of the 96 senders. In Treatment 3, where the gains to the sender from lying and the loss to player 2 were both \$10, the number of people lying increased to 50 percent or 41 of the 82 senders. A chi-square test for the differences reveals them to be statistically significant at the 1 percent level. These findings are similar in direction, though not in magnitude to the Gneezy study. The above findings reflect the effects of consequences on behavior: if the workers perceive the gains by lying to be little and the loss to the other party to be disproportionately higher, they are less likely to lie.

In the first question, 43 (44 percent) of the 98 people chose unfair and 38 (39 percent) people chose very unfair for the first question. In the second question, the number of people choosing unfair dropped to 20 (20 percent) and the percentage of people choosing very unfair increased to 55 percent. The difference in the workers’ response to the first and second question is significant at the 0.1 percent level. However, the percentage of people choosing fair also went up in the second question from 14 percent to 22 percent, unlike in the Gneezy paper.

Table 2 reports the results of the priming experiment. Panel A reports the results for the full sample. Column 2 shows that individuals primed with empathy are 16% more likely to select the truthful message and this effect is statistically significant at the 5% level. As seen in Column 3, this effect is largely due to Treatment 1, where there are small differences in payoffs for the two players. Column 7 shows that guile causes individuals to be 33% less likely to think Mr. Johnson’s behavior is very unfair. This effect is statistically significant at the 1% level. These main results are robust across specifications and subsamples.

In the full sample, there is no correlation between the primes and the eye-score in the Reading-the-

mind-behind-the-Eyes exam (Column 1). When the data is restricted to non-Indians, the guile prime reduces the eyescore by 2.5 points and the reduction is significant at the 5% level. One reason for this restriction is that Indians perform significantly worse in related tasks (Shaw et al. 2011). In this sample, the effect of empathy now increases to 55% higher likelihood to send the truthful message when there are small differences in payoffs for the two players. (in Treatment 1, Column 3).

Panel C reports the results for the sample of workers who entered the prime accurately. Accuracy is measured using the Levenshtein distance – the minimum number of operations needed to transform one string into another. “Operation” is defined as an insertion, deletion or substitution of a single character (Levenshtein 1966). Accuracy is transformed into a dummy variable where the Levenshtein distance greater than 100 is considered inaccurate. It turns out the data entry was bimodal with some individuals doing their best to enter the entire paragraph while others entered a few words, a line, or a free expression. Accuracy increases the likelihood that the subject paid enough attention to be primed. On the other hand, these results are more challenging to interpret because accuracy itself could be affected by the prime. With this caveat in mind, both guile and empathy increases the individual likelihood to report the truthful message (statistically significant at the 5 or 1% level).

When all demographic variables are controlled for, the original main results hold. Empathy increases the likelihood an individual reports the truthful message in the deception game by 18% and the effect is particularly salient when there are small differences in payoffs for the two players. Guile decreases the likelihood that individuals think Mr. Johnson’s behavior is very unfair. The controls do not predict the decision to report the truthful message. However, Hindus and Muslims are significantly less likely to view Mr. Johnson’s behavior as very unfair. They also perform significantly worse on the Reading-the-mind-behind-the-Eyes exam. Males and those who attend religious services more often also perform significantly worse on this exam.

4 Conclusion

I offered data entry workers different paragraphs for data entry. These paragraphs were designed to prime empathy or guile relative to a control group. When workers are primed for empathy, they became less deceptive towards third party in an economic deception game. Those primed for guile became less likely to perceive that deceiving others was very unfair. The effects are robust to a variety of controls and sub-samples and are statistically significant at the 5% level. These findings do not suggest that empathy begets guile, but rather, the opposite. There were no significant effects of priming on a Reading-the-mind-behind-the-Eyes exam. Whether this is due to the exam measuring a certain kind of empathy or whether the exam is culturally-specific is an open question. In examining the causal effect of empathy, this paper takes a first step towards a debate surrounding the selection of judges for empathy; it also takes a first step towards examining one of the mechanisms behind the *doux commerce* thesis that has proposed that a competitive market, with its disruptive effect on geographical and tribal isolation, will actually have morally improving effects, increasing our care for and understanding of others (see, e.g., Smith, Mills, and Montesquieu).

References

- Barankay, Iwan, 2010, Rankings and Social Tournaments: Evidence from a Field Experiment, Working paper, University of Pennsylvania, Mimeo.
- Baron-Cohen, Simon, Sally Wheelwright, Jacqueline Hill, Yogini Raste, and Ian Plumb, 2001, The "Reading the Mind in the Eyes" test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism, *Journal of child psychology and psychiatry* 42, 241–251.
- Chen, Daniel L., 2011, Markets, Morality, and Economic Growth: Does Competition Affect Utilitarian Commitments?, Working paper, Duke Law School.
- Chen, Daniel L., and John J. Horton, 2014, The Wages of Pay Cuts, *Management Information Systems Quarterly* (Revised and Resubmitted).
- Chen, Daniel L., and Susan Yeh, 2014a, The Construction of Morals, *Journal of Economic Behavior and Organization* 104, 84–105.
- Chen, Daniel L., and Susan Yeh, 2014b, Growth Under the Shadow of Expropriation? The Economic Impacts of Eminent Domain, Working paper, ETH Zurich and George Mason University.
- Chen, Daniel L., and Susan Yeh, 2014c, How Do Rights Revolutions Occur? Free Speech and the First Amendment, Working paper, ETH Zurich.
- De Waal, Frans BM, 2008, Putting the altruism back into altruism: the evolution of empathy, *Annu. Rev. Psychol.* 59, 279–300.
- Gneezy, Uri, 2005, Deception: The Role of Consequences, *The American Economic Review* 95, 384–394.
- Harrison, Glenn W., and John A. List, 2004, Field Experiments, *Journal of Economic Literature* 42, 1009–1055.
- Hayek, Friedrich August, 1948, *Individualism and Economic Order*, Midway reprints (University of Chicago Press).
- Hirschman, Albert O., 1982, Rival Interpretations of Market Society: Civilizing, Destructive, or Feeble?, *Journal of Economic Literature* 20, 1463–1484.
- Lakin, Jessica L, and Tanya L Chartrand, 2003, Using nonconscious behavioral mimicry to create affiliation and rapport, *Psychological science* 14, 334–339.
- Levenshtein, Vladimir I., 1966, Binary Codes Capable of Correcting Deletions, Insertions, and Reversals, in *Soviet Physics-Doklady*, volume 10, 707–710.
- Marx, Karl, 1867, *Das Kapital: Kritik der politischen Ökonomie* (Verlag von Otto Meisner, Hamburg, Germany).
- Mill, John S., 1848, *The Principles of Political Economy* (Wiley Online Library).
- Montesquieu, Charles, 1749, *The Spirit of Laws* (France).
- Orne, Martin T., 1962, On the Social Psychology of the Psychological Experiment: With Particular Reference to Demand Characteristics and Their Implications, *American Psychologist* 17, 776–783.
- Paine, Thomas, 1792, *The Rights of Man* (Printed for J. Parsons).
- Rosenberg, Nathan, 1964, Neglected Dimensions in the Analysis of Economic Change, *Bulletin of the Oxford University Institute of Economics & Statistics* 26, 59–77.
- Schumpeter, Joseph Alois, 1942, *Capitalism, Socialism, and Democracy* (Harper & Brothers Publishers).
- Shaw, Aaron D., John J. Horton, and Daniel L. Chen, 2011, Designing Incentives for Inexpert Human Raters, in *Proceedings of the ACM 2011 conference on Computer supported cooperative work*, 275–284, New York.
- Simmel, Georg, 1955, *Conflict and the Web of Group Affiliations* (Glencoe, IL: The Free Press).
- Sonnby-Borgström, Marianne, 2002, Automatic mimicry reactions as related to differences in emotional empathy, *Scandinavian journal of psychology* 43, 433–443.
- Titchener, James L., 1967, Experimenter Effects in Behavioral Research, *Archives of Internal Medicine* 120, 753–755.
- Veblen, Thorstein, 2007, *The Theory of the Leisure Class* (Echo Library).

Appendix Table 1 – Payoffs Used in the Experiment

Treatment	Option	Payoff to	
		Player 1	Player 2
1	A	5	6
	B	6	5
2	A	5	15
	B	6	5
3	A	5	15
	B	15	5

Treatment 1

This is a short experiment in decision making. In this experiment, you will be matched with another worker. Neither of you will ever know the identity of the other. The money that you earn will be paid to you next week, privately and in cash.

Two possible monetary payments are available to you and your counterpart in the experiment. The two payment options are:

Option A: 5 cents to you and 6 cents to the other worker

Option B: 6 cents to you and 5 cents to the other worker

The choice rests with the other worker who will have to choose either Option A or Option B. The only information your counterpart will have is information sent by you in a message. That is, he or she will not know the monetary payments associated with each choice.

We now ask you to choose one of the following two possible messages, which you will send to your counterpart:

Message 1: "Option A will earn you more money than Option B."

Message 2: "Option B will earn you more money than Option A."

We will show the other worker your message and ask him or her to choose either A or B. To repeat, your counterpart's choice will determine the payments in the experiment. However, your counterpart will never know what sums were actually offered in the option not chosen (that is, he or she will never know whether your message was true or not). Moreover, he or she will never know the sums to be paid to you according to the different options.

We will pay the two of you according to the choice made by your counterpart.

I choose to send (please select one option):

Message 1

Message 2

Treatment 2

This is a short experiment in decision making. In this experiment, you will be matched with another worker. Neither of you will ever know the identity of the other. The money that you earn will be paid to you next week, privately and in cash.

Two possible monetary payments are available to you and your counterpart in the experiment. The two payment options are:

Option A: 5 cents to you and 15 cents to the other worker

Option B: 6 cents to you and 5 cents to the other worker

The choice rests with the other worker who will have to choose either Option A or Option B. The only information your counterpart will have is information sent by you in a message. That is, he or she will not know the monetary payments associated with each choice.

We now ask you to choose one of the following two possible messages, which you will send to your counterpart:

Message 1: "Option A will earn you more money than Option B."

Message 2: "Option B will earn you more money than Option A."

We will show the other worker your message and ask him or her to choose either A or B. To repeat, your counterpart's choice will determine the payments in the experiment. However, your counterpart will never know what sums were actually offered in the option not chosen (that is, he or she will never know whether your message was true or not). Moreover, he or she will never know the sums to be paid to you according to the different options.

We will pay the two of you according to the choice made by your counterpart.

I choose to send (please select one option):

Message 1

Message 2

Treatment 3

This is a short experiment in decision making. In this experiment, you will be matched with another worker. Neither of you will ever know the identity of the other. The money that you earn will be paid to you next week, privately and in cash.

Two possible monetary payments are available to you and your counterpart in the experiment. The two payment options are:

Option A: 5 cents to you and 15 cents to the other worker

Option B: 15 cents to you and 5 cents to the other worker

The choice rests with the other worker who will have to choose either Option A or Option B. The only information your counterpart will have is information sent by you in a message. That is, he or she will not know the monetary payments associated with each choice.

We now ask you to choose one of the following two possible messages, which you will send to your counterpart:

Message 1: "Option A will earn you more money than Option B."

Message 2: "Option B will earn you more money than Option A."

We will show the other worker your message and ask him or her to choose either A or B. To repeat, your counterpart's choice will determine the payments in the experiment. However, your counterpart will never know what sums were actually offered in the option not chosen (that is, he or she will never know whether your message was true or not). Moreover, he or she will never know the sums to be paid to you according to the different options.

We will pay the two of you according to the choice made by your counterpart.

I choose to send (please select one option):

Message 1

Message 2

Treatment 4

Mr. Johnson is about to close a deal and sell his car for \$1,200. The engine's oil pump does not work well, and Mr. Johnson knows that if the buyer learns about this, he will have to reduce the price by \$250 (the cost of fixing the pump). If Mr. Johnson doesn't tell the buyer, the engine will overheat on the first hot day, resulting in damages of \$250 for the buyer. Being winter, the only way the buyer can learn about this now is if Mr. Johnson were to tell him. Otherwise, the buyer will learn about it only on the next hot day. Mr. Johnson chose not to tell the buyer about the problems with the oil pump. In your opinion, Mr. Johnson's behavior is:

Completely Fair

Fair

Unfair

Very Unfair

What would your answer be if the cost of fixing the damage for the buyer incase Mr. Johnson does not tell him is \$1,000 instead of \$250? Mr. Johnson's behavior is:

Completely Fair

Fair

Unfair

Very Unfair

Figure 1: Experimental Design

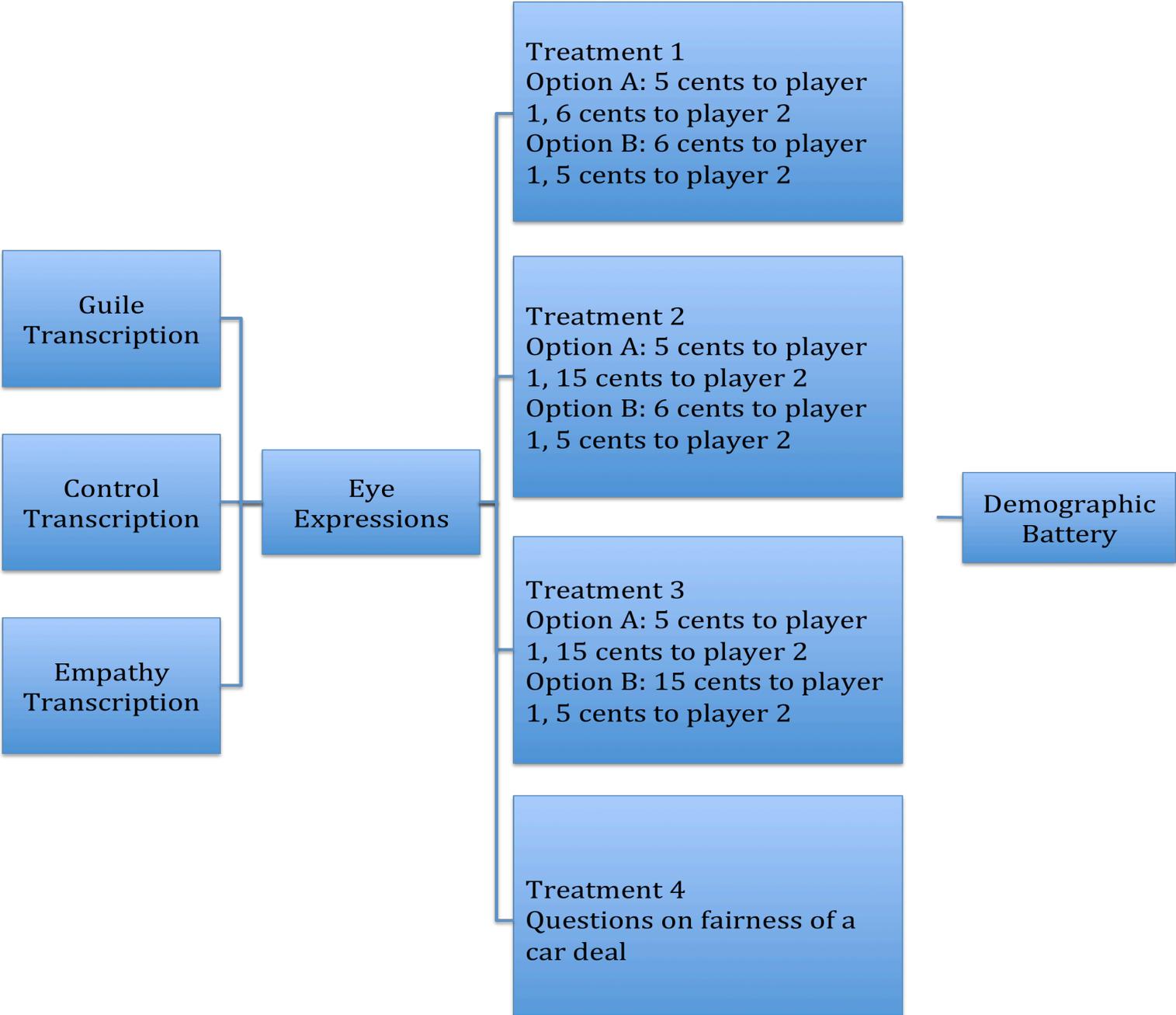


Table 1: Summary Statistics

Treatment: Prime:	Treatment 1 (5,6) vs. (6,5)			Treatment 2 (5,15) vs. (6,5)			Treatment 3 (5,15) vs. (15, 5)			Treatment 4 (vignette)			Total
	Control (1)	Empathy (2)	Guile (3)	Control (4)	Empathy (5)	Guile (6)	Control (7)	Empathy (8)	Guile (9)	Control (10)	Empathy (11)	Guile (12)	
Eyescore	20.88 (7.256)	20.76 (7.302)	17.93 (7.579)	17.89 (9.170)	19.61 (7.750)	20.59 (7.591)	20.94 (6.183)	19 (8.563)	19.37 (7.190)	22.59 (6.484)	19.49 (7.295)	19.46 (7.992)	19.87 (7.572)
Message1	0.436 (0.502)	0.703 (0.463)	0.571 (0.504)	0.727 (0.452)	0.762 (0.431)	0.730 (0.450)	0.471 (0.507)	0.600 (0.500)	0.514 (0.507)				0.616 (0.487)
Unfair_1										0.379 (0.494)	0.419 (0.499)	0.364 (0.489)	0.390 (0.490)
Unfair_2										0.724 (0.455)	0.512 (0.506)	0.394 (0.496)	0.533 (0.501)
Accuracy	0.762 (0.431)	0.816 (0.393)	0.600 (0.498)	0.684 (0.471)	0.717 (0.455)	0.487 (0.506)	0.857 (0.355)	0.607 (0.497)	0.684 (0.471)	0.862 (0.351)	0.766 (0.428)	0.622 (0.492)	0.707 (0.456)
Age	26.94 (5.689)	28.69 (8.789)	27.44 (7.969)	26.76 (9.753)	27.51 (7.559)	27.12 (6.020)	29.41 (10.53)	27.14 (5.615)	29.50 (8.571)	25.52 (5.990)	27.75 (6.574)	26.27 (8.666)	27.54 (7.749)
Male	0.529 (0.507)	0.656 (0.483)	0.600 (0.500)	0.655 (0.484)	0.657 (0.482)	0.656 (0.483)	0.556 (0.506)	0.571 (0.507)	0.765 (0.431)	0.519 (0.509)	0.634 (0.488)	0.633 (0.490)	0.624 (0.485)
Christian	0.265 (0.448)	0.188 (0.397)	0.360 (0.490)	0.276 (0.455)	0.371 (0.490)	0.219 (0.420)	0.370 (0.492)	0.238 (0.436)	0.265 (0.448)	0.333 (0.480)	0.146 (0.358)	0.200 (0.407)	0.264 (0.442)
Hindu	0.382 (0.493)	0.250 (0.440)	0.320 (0.476)	0.379 (0.494)	0.314 (0.471)	0.500 (0.508)	0.333 (0.480)	0.381 (0.498)	0.441 (0.504)	0.333 (0.480)	0.463 (0.505)	0.467 (0.507)	0.384 (0.487)
Muslim	0.0882 (0.288)	0.188 (0.397)	0.160 (0.374)	0.103 (0.310)	0.0571 (0.236)	0.156 (0.369)	0.185 (0.396)	0.143 (0.359)	0.0882 (0.288)	0.0741 (0.267)	0.122 (0.331)	0.0667 (0.254)	0.117 (0.322)
Atheist	0.176 (0.387)	0.281 (0.457)	0.0800 (0.277)	0.103 (0.310)	0.114 (0.323)	0.0938 (0.296)	0.111 (0.320)	0.143 (0.359)	0.147 (0.359)	0.185 (0.396)	0.0732 (0.264)	0.167 (0.379)	0.139 (0.346)
Religious Services	2.882 (1.552)	2.562 (1.318)	2.720 (1.458)	2.414 (1.476)	2.914 (1.401)	2.688 (1.378)	2.852 (1.512)	2.905 (1.338)	2.529 (1.398)	2.704 (1.564)	2.634 (1.299)	2.700 (1.368)	2.703 (1.407)
Observations	42	38	30	38	46	39	35	28	38	29	47	37	447

Table 2: Main Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A	Eyescore	Message1	Message1	Message1	Message1	Unfair_1	Unfair_2
Full Sample		Full	Treatment 1	Treatment 2	Treatment 3	Treatment 4	
Guile	-1.028 (0.893)	0.0723 (0.0675)	0.136 (0.121)	0.00246 (0.106)	0.0437 (0.122)	-0.0157 (0.126)	-0.330** (0.125)
Empathy	-0.709 (0.872)	0.164* (0.0668)	0.267* (0.112)	0.0346 (0.103)	0.129 (0.133)	0.0393 (0.119)	-0.213+ (0.118)
N	447	310	104	112	94	105	105
R-sq	0.003	0.019	0.053	0.001	0.010	0.002	0.066
Panel B							
Non-Indian Workers							
Guile	-2.458* (1.044)	0.0783 (0.107)	0.316+ (0.165)	-0.0727 (0.181)	-0.0529 (0.191)	-0.125 (0.186)	-0.232 (0.143)
Empathy	-1.174 (0.989)	0.138 (0.101)	0.556** (0.151)	-0.118 (0.153)	-0.215 (0.215)	-0.0368 (0.177)	0.00735 (0.136)
N	183	136	49	48	39	47	47
R-sq	0.030	0.014	0.228	0.013	0.029	0.011	0.075
Panel C							
Workers with Accurate Entries							
Guile	-1.061 (0.922)	0.189* (0.0798)	0.319* (0.144)	0.149 (0.132)	0.110 (0.136)	0.0286 (0.149)	-0.244+ (0.146)
Empathy	-0.535 (0.850)	0.220** (0.0746)	0.313* (0.123)	0.173 (0.116)	0.0627 (0.154)	0.100 (0.131)	-0.220+ (0.129)
N	316	227	78	76	73	82	82
R-sq	0.004	0.043	0.097	0.032	0.009	0.008	0.045
Panel D							
Full Sample with Controls							
Guile	-0.510 (0.669)	0.0664 (0.0713)	0.162 (0.129)	0.00256 (0.113)	0.0676 (0.138)	0.0698 (0.121)	-0.277* (0.116)
Empathy	-0.329 (0.662)	0.178* (0.0719)	0.293* (0.122)	0.0654 (0.111)	0.106 (0.154)	0.158 (0.120)	-0.134 (0.115)
Age	0.122** (0.0359)	0.00121 (0.00384)	0.00843 (0.00720)	-0.00636 (0.00624)	0.00426 (0.00717)	-0.00446 (0.00681)	0.00786 (0.00652)
Male	-1.734** (0.571)	0.0592 (0.0629)	0.151 (0.105)	0.0275 (0.104)	-0.0524 (0.130)	-0.0672 (0.0956)	0.0382 (0.0916)
Christian	1.044 (1.054)	0.0441 (0.121)	-0.0242 (0.212)	0.0248 (0.164)	0.183 (0.306)	0.203 (0.167)	0.182 (0.160)
Hindu	-4.162** (0.993)	0.160 (0.116)	0.234 (0.202)	0.163 (0.158)	0.182 (0.297)	-0.330* (0.147)	-0.394** (0.141)
Muslim	-3.506** (1.203)	-0.188 (0.136)	-0.166 (0.227)	-0.233 (0.208)	-0.0187 (0.331)	-0.497* (0.198)	-0.311 (0.190)
Atheist	2.273* (1.141)	0.0708 (0.128)	0.148 (0.209)	0.186 (0.200)	0.0670 (0.305)	-0.259 (0.189)	-0.0136 (0.181)
Services	-0.603** (0.217)	-0.0459+ (0.0238)	-0.0255 (0.0420)	-0.0359 (0.0364)	-0.0726 (0.0507)	-0.00802 (0.0369)	-0.0508 (0.0354)
Constant	22.44** (1.484)	0.510** (0.168)	0.0540 (0.300)	0.899** (0.260)	0.423 (0.362)	0.668** (0.241)	0.754** (0.231)
N	366	269	91	96	82	97	97
R-sq	0.313	0.095	0.184	0.130	0.068	0.238	0.327

Notes: The dependent variable, Eyescore, refers to the score on the Reading-the-Mind-Behind-the-Eyes exam; Message1 refers to responding truthfully in the deceit game; Unfair_1 and Unfair_2 corresponds to the answer "Very Unfair" in the vignette. Standard errors in parentheses: + p<0.10, * p<0.05, ** p<0.01